Designing and Limiting Searches

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with additional material originally presented by

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Question

- Define question
  - PICO format
  - Answerable question
  - Think about what type of article will answer
- Your question guides your search
- Search differently for research and EBHC

Question

- One of your patients is readmitted to the inpatient team with pancreatitis following ERCP. She has been NPO for 10 days. You plan to initiate IV hyperalimentation, your attending asks whether enteral nutrition has been studied? What do you tell her?

Question

- P*atient*
  - Adult with pancreatitis
- I*ntervention*
  - enteral nutrition
- C*omparison*
  - IV hyperalimentation
- O*utcome*
  - resolution of pancreatitis; complications

Initial Search

- Main idea?
  - Pancreatitis
- Map to subject heading
  - Pancreatitis is a main heading

Results of Initial Search

- Pancreatitis (MeSH and textword)
  - 28309 entries
- Now use a second part of the question:
  - enteral nutrition

Second Part of Search

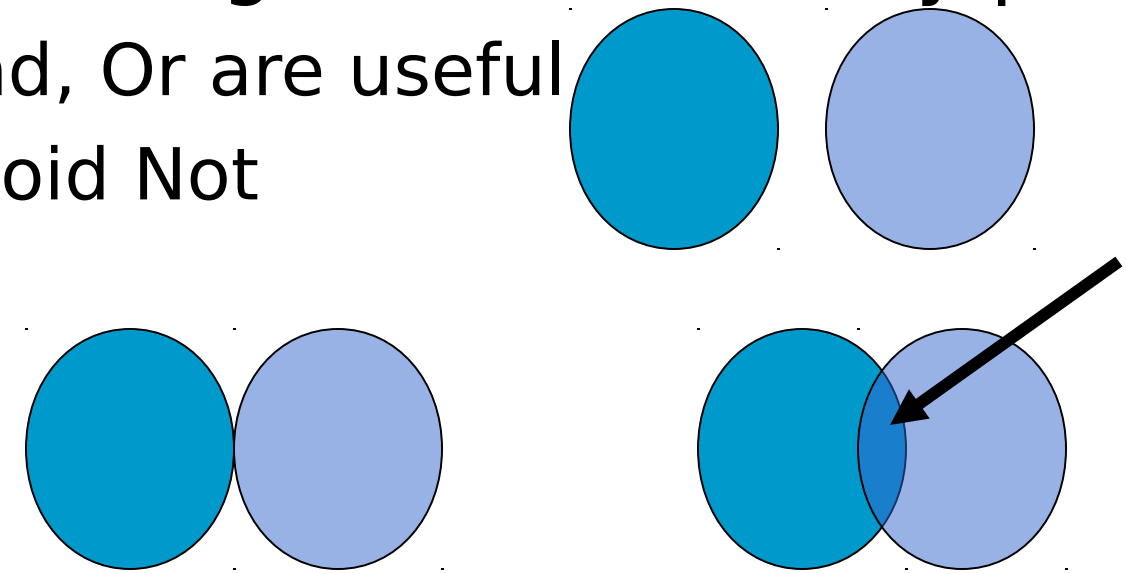
- Enteral Nutrition
  - Map to subject heading
  - Explode the term
  - Select all subheadings
- Search gives 8619 enteries

Third Part of Search

- In many cases, only two parts of the question need to be searched and combined
- In this case the contrast with hyperalimentation is central to our question
- Parenteral nutrition (MeSH main heading) is searched: 17396 entries

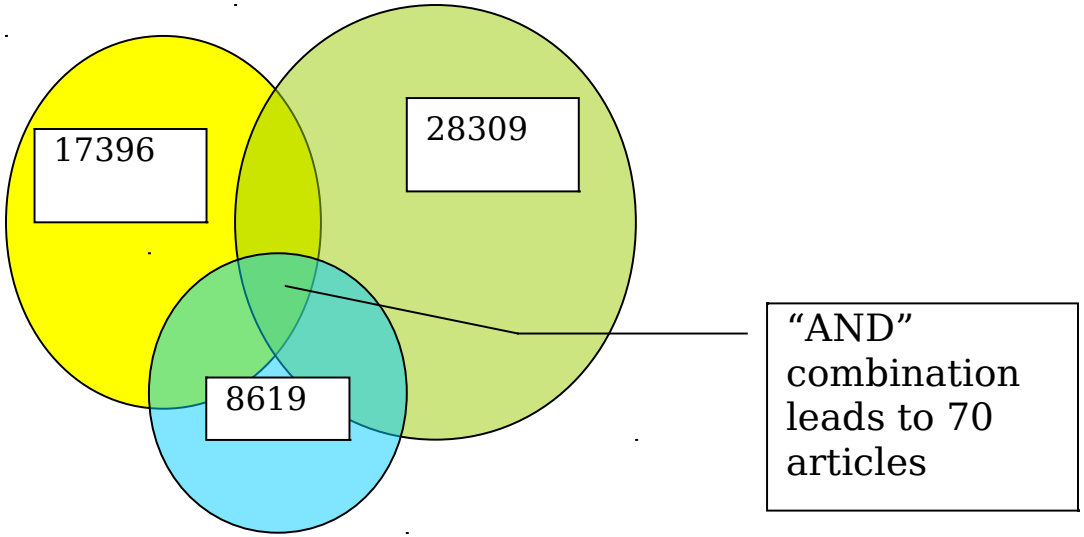
Combine Searches

- Combining searches is very powerful
  - And, Or are useful
  - Avoid Not



  - OR AND

Combine Searches



- How can we limit further?
  - Language, species, article type, pub year
  - Asterisk for focus on main topic

Limit our Search

- Since this is a therapy question, an RCT is the highest grade of evidence.
- The RCT publication type will limit to RCTs
- Limiting to RCTs yields 6 articles, 4 pertinent

Limiting

- Limit button
  - PubMed and Ovid both have these buttons
- Command language shortcut
  - .pt. for publication type
  - .lg. for language

Further Limiting

- Limit by study type
  - randomized controlled trial.pt
  - controlled clinical trial.pt
  - clinical trial.pt
- Combine with last search

Further Limiting

- Combine with search of study type
  - “cohort”
  - “systematic review”
- Combine with search of study element
  - “gold standard”
  - “sensitivity and specificity”

Pitfalls

- Not using PICO
  - Formulating your question helps to focus searching.
- Searching as textwords all the time
  - Too sensitive
- Complex search
  - Divide into simple searches and combine

Pitfalls - Publication type vs. MeSH term

- Controlled Clinical Trials is a MeSH term
  - Articles *about* trials or how to *write* a trial
- Controlled Clinical Trials is a Pub type (.pt.)
  - Articles that *are* controlled clinical trials
- MeSH defines subject area
- .pt. defines type of article

Conclusion

- Use PICO elements to design search
- Map to subject headings (MeSH)
- Limit by
  - Combining
  - Language, human, publication years
  - Evidence-based filters